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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,921	12/29/2000	Robert J. O'Donnell	015290-465	6804
21839	7590	11/20/2003	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			TRAN, BINH X	
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ALEXANDRIA, VA 22313-1404			ART UNIT	PAPER NUMBER

1785

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/749,921

Applicant(s)

O'DONNELL ET AL.

Examiner

Binh X Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 and 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-23 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 09162002.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Group II (claims 8-18) in Paper filed 9-30-2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 1-7, 19-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper filed 9-30-2003.

### ***Information Disclosure Statement***

3. The examiner considers all the references in the IDS submitted on 9-16-2002 except 0443778A1 because it fails to comply with 37 CFR 1.98(a)(3). The reference 0443778A1 does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered. See attachment PTO 1449 for further detail.

### ***Claim Interpretation***

4. In claim 16, the examiner considers there is no such thing as perfectly smooth surface. Each surface must have some degree of roughness if we measure it to the

atomic or molecular size level. Therefore, a prior art teaching of a component surface in contact with the plasma sprayed coating will read on the limitation of "roughened surface in contact with the plasma sprayed coating" since the prior art component's surface must have a certain degree of roughness.

***Claim Objections***

5. Claim 12 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The examiner interprets that every layer (including the substrate) must be either anodized or non-anodized surface. In claim 12, the applicants indicate that the substrate includes "an anodized or an non-anodized surface". This claim fails to further limit the subject matter of previous claim because the applicants disclose all the possible choice for substrate material.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 8-16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lubomirsky et al. (US 6,326,597) in view of Clarke et al. (US 6,120,854).

Respect to claim 8, Lubomirsky discloses a component of the semiconductor processing apparatus having a polymer on the outer surface thereof (col. 4 lines 5-8). Lubomirsky fails to explicitly disclose the polymer material is a liquid crystal polymer. Clarke discloses that the liquid crystal polymer (LCP) has big advantage such as enhance the durability of the surface or operational performance, cutting maintenance cost over non liquid crystal polymer (col. 1 lines 54-65). It would have been obvious to one having ordinary skill in the art, at the time of invention, to modify Lubomirsky in view of Clarke by having a LCP on an outer surface because it will increase durability of the surface and decrease maintenance cost.

Respect to claim 9, the examiner interprets the term "substrate" means a base layer. Accordingly the examiner will interpret that Lubomirsky discloses a substrate with the polymer layer on it (col. 4). Respect to claims 9-10, Clarke discloses the liquid crystalline polymer is coating on an aluminum substrate (col. 1 lines 5-10). Respect to claim 11, Lubomirsky discloses the substrate is aluminum oxide (aka alumina) (col. 4 lines 40-45). Respect to claim 12, Clarke discloses the substrate includes a non-anodized surface. Respect to claim 13, Clarke discloses the liquid crystalline polymers

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comprises a plasma sprayed coating (col. 3). Respect to claim 14 and 18, Lubomirsky discloses the component is a wall of a plasma chamber. Respect to claim 15, Clarke teaches to perform sheet covering the surface of a substrate. The limitation of claim 16 has been discussed above.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lubomirsky and Clarke as applied to claim 8 above, and further in view of Waggoner et al. (US 5,397,502).

Lubomirsky and Clarke fail to disclose that the liquid crystalline polymer contains a filler. Waggoner disclose the liquid crystalline polymer contain a filler (col. 1 lines 10-25, col.3 lines 18-35). It would have been obvious to one having ordinary skill in the art, at the time of invention, to modify Lubomirsky and Clarke in view of Waggoner by having filler because it will increase the melting point of the liquid crystalline polymer.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh X Tran whose telephone number is (703) 308-1867. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine G Norton can be reached on (703) 305-2667. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Binh X. Tran

*SUPERVISOR*  
NADINE G. NORTON  
PRIMARY EXAMINER

